

ACCESSION NR: AP4013423

S/0057/64/034/002/0333/0335

AUTHOR: Adonina, A.I.; Shcherbak, V.V.

TITLE: Equivalent boundary conditions on a metallic grating at the boundary between two magnetodielectrics

SOURCE: Zhurnl.tekhn.fiz., v.34, no.2, 1964, 333-335

TOPIC TAGS: diffraction grating, magnetodielectric, equivalent boundary conditions, ring waveguide, helix waveguide

ABSTRACT: Equivalent boundary conditions for the complex amplitudes of the electromagnetic field on an infinite plane metallic grating at the boundary between two magnetodielectrics are derived from the solution of the corresponding diffraction problem (A.I.Adonina, V.V.Shcherbak,ZhTF,34,168,1964). The equivalent boundary conditions are valid in the long wavelength limit and are obtained by eliminating the amplitudes of the incident wave from the expressions for the fields on the grating with the diffracted waves neglected. The conditions are

$$E_r = -i\alpha \frac{1}{1 + \frac{1}{\mu}} \ln \frac{1+u}{2} \left\{ H_{r1} - H_{r2} - \frac{i}{k} \frac{1 + \frac{1}{\mu}}{1 + \epsilon} \frac{\partial}{\partial z} (E_{r1} - \epsilon E_{r2}) \right\},$$

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$$H_{1s} - H_{2s} = -ix(1-\epsilon) \ln \frac{1-u}{2} \left\{ E_s + \frac{i}{x} \frac{1+\frac{1}{\mu}}{1+\epsilon} \frac{\partial}{\partial s} B_s \right\}$$

where the subscripts 1 and 2 refer to the two media,  $\epsilon$  and  $\mu$  are the ratios of the complex dielectric constant and magnetic permeability, respectively, in medium 1 to the corresponding quantities in medium 2, indices s, r, T refer respectively to the direction of the grating slots, the direction normal to the grating, and the direction perpendicular to both s and r,  $x$  is the ratio of the grating constant and the wavelength, and  $u = \cos(\pi d/l)$ , where  $l$  is the grating constant and  $d$  is the width of the slots. The equivalent boundary conditions are said to be applicable to the investigation of ring waveguides and helix waveguides in a manner indicated by N.N.Smirnov (ZHTF 28, No.7, 1958). Orig.art.has: 13 formulas.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet im.A.M.Gorkogo (Kharkov State University)

SUBMITTED: 25Dec62	DATE ACQ: 26Feb64	ENCL: 00
SUB CODE: PH	NR REF Sov: 006	OTHER: 000

Card 2/2

\* 40000-65 SWP(1)/ECC-4/EEO(1)/FCS(k)/T - Pac-4/Pi-4/Pj-4/P1-4 WR

POLARIZATION FILTER FORMULAS  
E-polarized-wave reflection factor are supplied for calculating the filter.  
Formulas and curves are offered for calculating a shielded grating which serves  
as a polarizer or as a polarizer upon the

numerical solution, and the use of a digital computer. It is proven that the diffracted field cannot be divided into E- and H-polarized waves. Orig. art. has: 5 figures and 17 formulas.

ASSOCIATION: Kharkovskiy gosudarstvennyy universitet (Kharkov State University)

*mle*  
Card 1/1

ACC NR: AP6002453

SOURCE CODE: UR/0057/65/035/012/2242/2244

AUTHOR: Adonina, A.I.ORG: Khar'kov State University im. A.M. Gor'kiv (Khar'kovskiy gosudarstvenny universitet)TITLE: On the grazing condition for diffracted waves from plane gratings 21, 44154SOURCE: Zhurnal tehnicheskoy fiziki, v. 35, no. 12, 1965, 2242-2244TOPIC TAGS: electromagnetic wave diffraction, diffraction grating, microwave, wavelength measurement

ABSTRACT: As one gradually varies the wavelength or angle of incidence of plane wave incident on a plane grating the n-th order diffracted wave at some point ceases to be a freely propagating wave and becomes a damped surface wave on the grating. The condition for transition from a freely propagating wave to a damped surface wave is the "grazing condition" of the title. When the grazing condition is satisfied for any diffracted wave, the derivative of the transmission factor of the grating with respect to the wavelength (or to the angle of incidence) is discontinuous; this is illustrated by transmission curves calculated with the "rigorous" theory of the author and V.P. Shestopalov (ZhTF, 33, 641, 1963). These discontinuities make it possible to recognize when the grazing condition is satisfied. It is proposed that the grazing condition be employed to measure wavelengths in the microwave region. Suitable equip-

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ACC NR: AP8002453

ment for the measurements is described elsewhere by the author and V.P.Shestopalov  
(Radiotekhnika i elektronika, 8, 950, 1963). Orig. art. has: 10 formulas and  
2 figures.

SUB CODE: 20

SUBM DATE: 22Feb65

ORIG. REF: 002

OTH REF: O

Card 2/2

L 21752-66 EWT(1) GG

ACC NR: AP6004899

SOURCE CODE: UR/0057/66/036/001/0194/0195

AUTHOR: Adonina, A.I.; Andrusenko, A.M.ORG: Khar'kov State University im. A.M.Gor'kiy (Khar'kovskiy gosuniversitet)

TITLE: Determination of wavelength from the angle of incidence on a plane metallic grating at which the grazing condition is satisfied for the n-th order diffracted w

SOURCE: Zhurnal tehnicheskoy fiziki, v. 36, no. 1, 1966, 194-195

TOPIC TAGS: electromagnetic wave diffraction, diffraction grating, microwave, wavelength measurement

ABSTRACT: In a recent paper (A.I.Adonina, ZhTF, 35, No. 12, 1965/ see Abstract 21, AP6002453/) one of the authors has shown that the angle of incidence of plane electric magnetic waves on a plane grating for which grazing condition is satisfied for one of the diffracted waves, can be identified by examining the curve giving the transmissivity factor of the grating as a function of angle of incidence. In the present paper the are reported wavelength measurements by the grazing condition technique at wavelength near 7.1, 8.35, and 8.5 mm. The waves were emitted by a horn antenna and were received by a similar horn coaxial with it. Between the two antennas was a plane grating which could be rotated about an axis perpendicular to the line joining the antennas to vary the angle of incidence. When the angle of incidence for which the grazing condition was satisfied for some diffracted wave was identified by the methods discussed in th

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UDC: 621.3.083

L 21758-66

ACC NR: AP6004899

earlier paper, the order of the grazing diffracted wave was determined by rotating the receiving horn about the rotation axis of the grating and counting the number of maxima in the received signal. The wavelength was then calculated from the grazing condition. For control the wavelengths were also measured with a heterodyne frequency meter having an accuracy of  $5 \times 10^{-5}$ . The wavelengths measured by the grazing condition technique agreed with those measured with the frequency meter within 0.1%. The accuracy of the wavelength measurements could be improved by measuring the grating constant and the angle of incidence with greater accuracy. Orig. art. has: 3 formulas and 4 figures.

SUB CODE: 20/

SUBM DATE: 05Jul65/

ORIG REF: 002/

OTH REF: 00

Card 2/2

UVR

ADONKIN, F. S. Cand Med Sci -- (diss) "Role of higher sections of the central nervous system in processes of restoration of the morphological composition of blood after bloodletting." Khar'kov, 1988. 1c pp (Khar'kov State Med Inst), 200 copies (KL, 14-58, 116)

AL'PERN, D.Ye., prof.; ADONKIN, F.S.

Work of the Kharkov Province Section of Pathophysiolists during the  
1958-59 academic year. Pat.fiziol. i eksp.terap. 3 no.6:89-90 N-D '59.  
(MIRA 13:3)

1. Chlen-korrespondent AN USSR (for Al'pern).  
(KHARKOV PROVINCE--PATHOPHYSIOLOGICAL SOCIETIES)

ADONKIN, I.S.

We are striving for a mine of communist labor. Ugol' 38 no.11:  
6-7 N '63. (NIRA 17:9)

1. Glavnyy inzh. shakhtoupravleniya "Kholodnaya Balka" tresta  
Makeyevugol'.

ADONTS, G. T.

Adonts, G. T. - "A method of calculation for complex irregular conditions in electrical systems," Doklady (Akad. nauk Azerbaydzh. SSR), 1949, No. 1, p. 13-17 — Summary in Azerbaijani  
— Bibliog: 7 items

So: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

USSR/Electricity - Mathematics, Aug 49  
Applied

"Method of Calculating Complex Asymmetrical Operation," G. T. Adonts, Cand Tech Sci, Power Eng Inst imeni Yes'man, Acad Sci Azerbaijan SSR, 6 pp

"Elektrichesvo" No 8

Suggests a method for calculating complex non-symmetry which permits considering a particular phase at the dislocation point with the aid of a new operator  $a_{1n}$ . The operator  $a_{1n}$ , in distinction to the usual operator  $a_1$ , establishes the relationship not only between the symmetrical

66/49729

USSR/Electricity - Mathematics, (Contd) Aug 49  
Applied

components ( $1=0;1;2$ ) of current and voltage for the given phase, but also between the particular phases ( $k=0;1;2$ ) at the points where symmetry is broken ( $n=1;2;3,\dots$ ).

66/49729

621.315.09

615 Effect of complicated asymmetrical conditions  
of electric systems. G. T. ADONTS. *Elektricheskoj*,  
No. 9, 19-21 (Sept., 1931) In Russian.

A further development of the method referred to in Abstr. 371 (1930). By transforming the equivalent circuit and the impedance matrix of a complicated asymmetrical case with an earth fault or an interruption at a point of phase  $A$ , equivalent circuits and matrices may be derived catering for a large number of cases of complicated asymmetry in a system with earthed or isolated neutral. These enable the number of independent currents and special phases of the asymmetry to be determined. The imposition of boundary conditions of the type  $Z^k = \infty$  ( $k = 1, 2, \dots$ ) on the equations of the types of asymmetry mentioned reduces the number of independent currents by  $k$  without reducing the number of special phases, whereas boundary conditions of the type  $Z^k = 0$  ( $k = 1, 2, \dots$ ) reduce the number of special phases without reducing the number of independent currents. Boundary conditions of the type  $Z_i = 0$  ( $i = 0, 1, 2$ ) do not reduce the number of special phases. In investigating dynamic stability of electric systems under complicated conditions of asymmetry on an a.c. network analyser the special phases may be represented by isolating transformers with transformation ratios  $1 : w^2$ ;  $1 : w^3$  or by special phase-shifting devices in the equivalent circuits.

B. P. KRAUS

USSR/Electricity - Induction Motors

MAY 52

"Investigation of Conditions for Self-Starting and Automatic Repeated Starting of Induction Motors Under Load," Cand Tech Sci G. T. Adonts, Power Eng Inst imeni Yes'man, Acad Sci Azerbaijan SSR

"Elektrichestvo" No 5, pp 31-40

Presents results of theoretical and exptl research on conditions for self-starting on induction motors with variable parameters. Proposes method of automatic repeated starting (APP) of these motors under load with time delay as means

240P46

of increasing stability of power system's load conen points under different emergency operating conditions. Submitted 5 Nov 51.

240P46

1. ADONTS, G.T.: ALESKEROV, S.A.: POPOV, A.N.: BABAYEV, M.A.
2. USSR (600)
4. Electric Networks
7. Experimental data on the study of the resistance of the load-carrying unit of a power system. Energ. biul. No. 8, 1952.
9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified

"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1

ADONTS, G. T. Cand. Tech. Sci.

"Self-Starting and Automatic Restarting of Compressor Stations Equipped With Synchronous Motors," a report delivered at the plenary session of the All-Union Conference of the Azerbaijan Branch of the All-Union Scientific and Technical Society of Petroleum Engineers and the All-Union Society of Power Engineers, Baku, 1954  
Vest. Ak. Nauk SSSR, December 1954.

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1"

ADONTS, G.T.

Classification of symmetrical, non-symmetrical and complex non-symmetrical connections in three-phase systems. Dokl. AN Azerb. SSR 10 no.4:251-256 '54. (MLRA 8:4)

1. Energeticheskiy institut im. I.G.Yes'mana Akademii nauk Azerbaydzhanskoy SSR. Predstavлено deystvitel'nym chlenom Akademii nauk Azerbaydzhanskoy SSR I.G.Yes'manom.

(Commutation(Electricity)) (Electric power distribution-- Multiphase)

"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1

ADONTS, G. T.

"Complex Asymmetrical Cycles of Electrical Systems. (Theory and Method of Computation)." Dr Tech Sci, Power Engineering Inst imeni I. G. Yes'man, Acad Sci Azerbaydzh SSR, Baku, 1955. (KL, No 17, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1"

ADONTS,G.T.

Structure of complex substitution schemes and equations for calculating complicated unsymmetrical electric circuits. Izv. AN Azerb.  
SSR no.2:21-42 F'55. (MIR 8:11)

(Electric circuits)

"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1

ADONTS, G.T.

Calculating parameters for quadri-poles and shift angles between  
voltage vectors on their connectors. Izv.AN Arm.SSR. Ser.tekh.nauk  
(MIRA 11:2)  
10 no.6:33-42 '57.

1.Laboratoriya elektrotehniki AN ArmSSR.  
(Electric circuits)

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1"

SOV/143-58-9-1/18

AUTHOR: Adonts, G.T., Doctor of Technical Sciences, Professor

TITLE: Differential Equations for an Open Polysynchronous Machine in Various Coordinate Systems (Differentsial'-nyye uravneniya yavnopolyusnoy sinkhronnoy mashiny v razlichnykh sistemakh koordinat)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy - Energetika, 1958, Nr 9, pp 1-17 (USSR)

ABSTRACT: The paper examines the general theory for obtaining interlinkage and voltage equations for open polysynchronous machines in various coordinate systems. It is more convenient to inscribe the equations in coordinates other than the usual  $Odq$  ones, especially when investigating individual, special working regimes of the machines. First the paper gives the basic propositions for generalizing the methods of equation conversion to overcome these shortcomings. Formulae are worked out for interlinkage and differential equations for voltage balance in the system of phase coordinates -  $\lambda = A, B, C$ . The power ( $P$ ) of 3 stator

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SOV/143-53-9-1/18

Differential Equations for an Open Polysynchronous Machine in Various Coordinate Systems

windings thus appears in the following form:

$$P = \sum_{\lambda=0}^2 e_\lambda i_\lambda$$

where  $\lambda = 0, 1, 2$  is the numerical index of the phase (stator) coils, corresponding to phases A,C,B (Fig 1a). Then equations are given for interlinkage, voltage and power in non-dimensional relative units, plus the differential equations for a machine in the coordinate system: Odq ( $x, y, z$ ). The paper also carries equations in the coordinate system Odq where  $\gamma = \text{const} - N$  ( $\gamma$  - angle between the stator's A phase axis and the longitudinal rotating axis of the rotor) ( $d$ ), and the differential equations for a machine in the coordinate system  $oab$ . There are 5 circuit diagrams, 3 tables, and 7 references, 6 of which are Soviet and 1 English.

ASSOCIATION: Yerevanskiy politekhnicheskiy institut imeni Karla Marksya (Yerevan Polytechnic Institute, imeni Karl Marx)

Card 2/3

"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1

SOV/143-58-9-1/18

Differential Equations for an Open Polysynchronous Machine in  
Various Coordinate Systems

SUBMITTED: May 8, 1958

Card 3/3

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1"

ADONTS, G.T., doktor tekhn.nauk

Winner of the P.N.IAblochkov prize - Professor G.I.Atabekov.  
Izv.AN Arm.SSR.Ser.tekh.nauk. 12 no.1:63-64 '59.

(MIRA 12:4)  
(Atabekov, Grigorii Iosifovich, 1908-)

~~ADONTS, G. T.~~; AYRAPETYAN, G. A.; AKOPDEZHANYAN, G. D.; GAMBUYAN, K. A.

Investigation of the stability of the Transcaucasian Electric Power System in conjunction with the introduction of Mingechaur-Aturbekyan intersystem electric power transmission. Izv. AN Arm.SSR.Ser.tekh. nauk 13 no.6:19-38 '60.  
(MIRA 14:3)

1. Institut elektrotehniki AN Armyanskoy SSR.  
(Transcaucasia—Interconnected electric utility systems)

ADONTS, G.T.; GRIGOR'YAN, Yu.G.; ADONTS, M.M.

Algorithm, program, and an example for computing on discrete-action calculating machines the fuel economy regime of a power system involving the state selection of generating units. Izv. Ak Arm. SSR. Ser. tekhn. nauk 14 no.3:13-26 '61. (MIRA 14:8)

1. Institut elektrotekhniki AN Armyanskoy SSR.  
(Electric power plants--Fuel consumption)  
(Calculating machines)

ADONTS, G.T.; AKOPDZHANYAN, G.D.; GAMBUYAN, K.A.; MARTIROSYAN, M.A.

Model of a.c. electric networks developed by the Academy of Sciences of the Armenian S.S.R. Izv. AN Arm. SSR Ser. tekhn. nauk 14 no.6:3-14 '61. (MIRA 16:8)

1. Institut energetiki AN Armyanskoy SSR.

"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1

ADONTS, G.T.

Development of electrotechnical science in Soviet Armenia.  
Iz ist.est.i tekhn. 2:94 '62. (MIRA 18:4)

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1"

ADONTS, G.T., doktor tekhn.nauk, prof.

Methods for calculating power losses in the networks of electric power systems. Elektrichestvo no.11:32-36 N '62. (MIRA 15:11)

1. Institut energetiki AN Armyanskoy SSR.  
(Electric power distribution)

"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1

ABONIS, G.I., doktor tehn.nauk, prof. (Yerevan); MARYANIAN, I.A., kand.tehn.  
nauk (Yerevan); AKOPYAN, S.G., inzh. (Yerevan)

Selection of a structural circuit for modeling the equations of  
a synchronous generator using an analog computer. Elektrichestvo  
no.31:19-21 N 1964. (MIRA 1964)

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1"

ADONTS, G.T.

Theory and methods for calculating a multiterminal network.  
Izv. AN Arm. SSR. Ser. tekhn. nauk. 17 no.5:3-8 '64. (MIRA 18:4)

1. Armyanskij nauchno-issledovatel'skiy institut elektroenergetiki

ADONTS, Grant Tigranovich; ATABEKOV, G.I., prof., retsenzent;  
MEL'NIKOV, N.A., prof., retsenzent; SAAKOV, V.I.,  
kand. tekhn. nauk otv. red.

[Multiterminal networks; theory and methods for their  
design] Mnogopoliusnik; teoriia i metody rascheta.  
Erevan, Izd-vo AN Armianskoi SSR, 1965. 466 p.  
(MIRA 18:7)

"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1

ADONTS, G.T.

Contribution to the theory and design of a multiterminal  
network. Izv. AN Arm. SSR. Ser. tekhn. nauk 17 no.6:3-16 '64.  
(MIRA 18:3)  
1. Armtel.

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1"

"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1

ADONTS, G.T.

Theory and methods for calculating a multiterminal network. Izv. AN  
Arm. SSR. Ser. tekh. nauk 18 no.1;13-18 '65. (MIRA 18:7)

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1"

ADONTS, G.T., doktor tekhn. nauk (Yerevan); SATAVSYAN, R.A., kand. tekhn. nauk (Yerevan); AKOPYAN, S.G., Inzh. (Yerevan)

Effect of the resistance and transient processes in the stator winding on changes in the rotor angle of a synchronous machine.  
Elektrichestvo no.1:54-62 Ja 165. (MIRA 18:?)

L 10258-67  
ACC NR: AP7003082

SOURCE CODE: UR/0173/66/019/001/0003/0

38

AUTHOR: Adonts, G. T.

ORG: Armenian NII of Power Engineering (Armyanskii NII energetiki)

TITLE: Problems in the mathematical simulation of power systems

SOURCE: AN ArmSSR. Izvestiya. Seriya tekhnicheskikh nauk, v. 19, no. 4, 1966, 3-12

TOPIC TAGS: hydroelectric power plant, thermoelectric power plant, analog computer, digital computer

ABSTRACT: The general problem of the optimization of conditions for hydro-thermal power-systems has not yet been solved and is still under development. However, solutions exist to a number of particular cases of this problem, including: 1) the optimization of conditions for a thermal power system; 2) the minimization of active and reactive power loss in the lines of power systems (algorithms have been developed at the Armenian NIIE [Nauchno-issledovatel'skiy institut energetiki; Scientific Research Institute of Power Engineering] for the solution of this problem); 3) the optimization of conditions for a hydrothermal power system (an algorithm is now under development at the Armenian NIIE for the optimum conditions for the Volgograd power system).

The most effective method of solving the problem of the optimization of a hydrothermal power system is the gradient method or the method of steepest descent. Particular cases of the problem can be solved on existing series digital computers. The Armenian NIIE has developed a special-purpose analog computer designed for the approximate solution of equations for the

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L 10258-67

ACC NR: AP7003082

optimization of power systems with not more than 16 equivalent stations, particularly for the optimization of conditions for the Volgograd power system.

The Armenian NIIE has had great success in creating an original analog model of a power system operating under automated conditions. The Committee for Inventions and Discoveries attached to the USSR Council of Ministers has granted inventor's certificates to the Institute for its analog computers for optimization of conditions and its mathematical simulation of power systems. The Institute has used its mathematical model for a number of investigations of conditions in the Armenian, Transcaucasian, and Chita power systems. The article lists some of these investigations, as well as some of the algorithms and programs developed at the Institute for determining various power system conditions by means of digital computers.

The article is a paper which was presented 16 March 1966, at a general meeting of the Armenian Academy of Sciences. Orig. art. has: 5 formulas.  
[JPRS: 39,040]

SUB CODE: 10, 09 / SUJEM DATE: 16Apr66 / ORIG REF: 008

Card 2/2

ADONTS, Musheg Ambartsumovich.

[Economic development of Eastern Armenia in the 19th century]  
Ekonomicheskoye razvitiye Vostochnoy Armenii v XIX veke.  
Erevan, Izd-vo Akademii nauk Armyanskoy SSR, 1957. 559 p.  
(MIRA 11:1)

1. Akademiya nauk Armyanskoy SSR. Institut ekonomiki.  
(Armenia--Economic conditions)

ADONTS, Musheg Ambartsumovich

[National income of a socialist society] [Natsional'nyi  
dokhod sotsialisticheskogo obshchestva. Erevan, Armian.gos.  
izd-vo] 1963. 290 p. [In Armenian] (MIRA 17:4)

ADONTS, G.T.; GRIGOR'YAN, Yu.G.; ADONTS, N.N.

Algorithm, program, and an example for computing on discrete-action calculating machines the fuel economy regime of a power system involving the state selection of generating units. Izv. Akad. Nauk SSSR. Ser. tekhn. nauk 14 no.3:13-26 '61. (MIRA 14:8)

1. Institut elektrotehniki AN Armyanskoy SSR.  
(Electric power plants--Fuel consumption)  
(Calculating machines)

ADONTS, M. T.

On One Class of Nonlinear Integrodifferential Equations  
Dokl. AN Azerb. SSR, Vol 10, No 3, 1954, pp 167-174 (Azerbayzhani resume)

The author generalizes results obtained by N. N. Nazarov (Tr. In-ta matem. i mekhan. AN Uz. SSR. No 4, 1948, pp 59-65, 75-76) to include integrodifferential equations in which n-th derivatives appear. Two theorems are formulated in support of the author's method. The abstractor, Yu. K. Lando, states that one of them is incorrect, considerably lessening the value of the article. (RZhMat, No 5, 1955)

SO: Sum. No. 639, 2 Sep 55

Akulin, A. I.

Akulov, A. I. - "Investigation of the decision points in solutions of a single class of integral-differential equations." Ural, 1975. Mr. Higher Education U.S.S.R. Averagdium State University S. N. Kirov. (dissertation for degree of Candidate of Physico-mathematical Sciences.)

Sc: Knizhnyx laboratori, No 43. 2e November 1975. Moscow.

"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1"

170017ZV, 1.

Inspektion is assistance, or not, in the period of 1958. (MIL 18.5)

1. Glavnyy iuridicheskiy i nauchno-tekhnicheskoy macherskoy  
i predsedatel' gruppy sodejstvivyye pri pochtyno-gosudarstvennomu  
kontrolyu Arkhangelskogo arrektora.

ADON'YEVA, N.Y.

#### APPENDIX AND REFERENCES

**Catalytic oxidation of hydrogen sulfide to sulfur dioxide in purifying natural gas.** A. V. Andreeva, N. V. Adon'eva, and E. M. Bukhareva. *Khim. Prom.*, 1946, No. 11, 17-18. Oxidation of  $\text{H}_2\text{S}$  to  $\text{SO}_2$  was studied with and without catalysts. The following were studied: an empty tube, a tube packed with pumice, and pumice on which were deposited Ni, Ni-Pt, Ni-Bi, Ni-Ag, Ni-Mo, Ni-Al, Ni-Pb-Al, Ni-Bi-Al, Ni-Pb-Bi, etc. The compn of the gas used in these expts. was  $\text{N}_2 67$ ,  $\text{O}_2 28.125$ , and  $\text{H}_2\text{S} 0.2$  (75%). The vol. velocities at which the gas was passed through the reactor were 1700-10,000. The temps. were 200-350°. At low velocities there was no difference in the results between an empty reactor and one packed with pumice. As the velocity of the gas increased the effectiveness of the empty reactor dropped faster than that of the one packed with pumice. Of the catalysts tested the most effective was Ni-Al. At 250-300° and velocities up to 7500 the oxidation of  $\text{H}_2\text{S}$  with this catalyst was complete. Other catalysts required higher temps. for equal results. M. Hosch

ASIA & METALLURGICAL LITERATURE CLASSIFICATION

**APPROVED FOR RELEASE: 06/05/2000**

CIA-RDP86-00513R000100330003-1"

GOLYAND, S.M.; ADON'YEVA, N.V.

Determination of cyanogen in coke-oven gas. Zav. lab. 24 no. 5:541-  
542 '58.  
(MIRA 11:6)

1. Nauchno-issledovatel'skiy institut po promyshlennoy i sanitarnoy  
ochistke gazov i Moskovskiy kokso-gazovyy zavod.  
(Cyanogen--Analysis) (Coke-oven gas--Analysis)

SZABO, Pal Zoltan; JONAS, Klara, dr.; VARADI, Gyorgy; BIRO, Antal;  
UPOR, Endre; RADO, Aladar; CZIRJAK, Imre; KOVACS, Jeno;  
VALKO, Endre, dr.; ADCONYI, Ivan; FODOR, Gyorgy; OSZETZKY,  
Egon; KALMAR, Pal; DANYI, Dezso; GYORGY, Karoly; OVARI, Antal;  
PHILIP, Miklos; BAKAI, Laszlo; JOO, Oszkarne; SZITAS, Lajos;  
HELLENYI, Miksa; KOLTA, Janos.

Formation of an uniform country organization for the Federation  
of Technical and Scientific Associations. Pecsi musz  
szeml 8 no.4:19-23 O-D'63.

1. "Pecsi Muszaki Szemle" foszerkesztoje (for Fodor).
2. "Pecsi Muszaki Szemle" szerkesztoje (for Hellenyi, Kolta  
and Oszetzky).

ADONYI, Z. BAJAIS, Gy.; ETIJAJ, J.

Chemical processes for building materials with a cement and lime bond and stabilize  
with steam. p. 374.

EPIRONYAG, Vol. 7, No. 10, Oct. 1959

(Eticanyagitari Tudomanyos Egyesulet es a Nehervergyipari Kutato Intemet Szaklikat  
Csatalya) Budapest.

SOURCE: East European Accessions List Vol. 5, No. 1 September, 1956

"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1"

HUNGARY / Chemical Technology. Chemical Products and H-4  
Their Application. Corrosion. Corrosion  
Control.

Abs Jour: Ref Zhur-Khimiya, No 23, 1958, 73055.

Author : Adonyi, Zoltan; Szobenyi, Imre.

Inst : Not given.

Title : Concerning the Corrosion of a Tank of Reinforced  
Concrete for Storage of Phenol Sulfonic Acids.

Orig Pub: Epitoanyag, 1958, 10, No 1-2, 54-55.

Abstract: No abstract.

Card 1/1

HUNGARY / Chemical Technology. Chemical Products and H-13  
Their Application. Ceramics. Glass. Binding Materials. Concrete.

Abs Jour: Ref Zhur-Khimiya, No 1, 1959, 2162.

Author : Adonyi, Z., Gartner, L.

Inst : Not given.

Title : Comments on the Vibration of Reinforced Concrete.

Orig Pub: Epitoanyag, 1958, 10, No 1-2, 56.

Abstract: During the construction of a traffic bridge, concrete was poured in two layers for reinforced H-beams: the lower beam with  $V/T_s = 0.4$ , and the upper one with  $V/T_s = 0.38$ . The strengths of the upper part of the lower layer, particularly in the region adjacent to the upper layer, proved to be insufficient. It occurred because

Card 1/2

HUNGARY / Chemical Technology. Chemical Products and H-13  
Their Application. Ceramics. Glass. Binding Materials. Concreto.

Abs Jour: Ref Zhur-Khimiya, No 1, 1959, 2162.

Abstract: at a given concreto consistency and at intensive vibration the clayish part of sand which is used as a fine filler and its finer parts, are accumulated at the border layer. In the same region the finest concrete fractions are accumulated and succeeded in becoming hydrated during storage, thus also reducing the strengths of the concrete. To eliminate that harmful phenomenon, an increase in V/T<sub>s</sub> is imperative, a change in laying concrete is necessary as well as the use of sand having a smaller amount of clayish particles. -- D. Pyushpeki.

Card 2/2

54

ADONYI, Zoltan; PALLAI, Ivonne, dr.

Investigations for the utilization of gypsum-anhydrite found  
in Perkupa. Epitoanyag 14 no.6:221-228 Je '62.

"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1

ADONYI, Zoltan; NEMETH, Jeno, dr.; PALLAI IVANNE RAAB, Edit, dr.

Investigations for the utilization of the Perkupa gypsum-anhydrite.II. Epitoanyag 14 no.7:268-271 Jl '62.

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1"

ADONYI, Zoltan

Informative investigations for preparing binding materials from  
anhydrite of Perkupa. Epitoanyag '4 no.8:292-295 Ag '62.

ADONYI, Zoltan; NEMETH, Jeno; PALLAI, Ivonne; RAAB, Edit

Experiments for manufacturing plaster from the Perkupa gypsum  
in fluidized layer. Magy kem lap 18 no.2/3:66-71 F-Mr '63.

1. Budapesti Muszaki Egyetem Kemial Technologial Tanszek (for  
Adonyi). 2. Muszaki Kemial Kutato Intezet, Budapest (for Nemeth,  
Pallai, Raab).

LOVI, M.

LOVI, M.; ADOR, V.; GABOR, M.

Effect of rutin on healing of experimental corneal ulcers. Acta  
med. hung. 6 no.3-4:391-396 1954.

1. Augenklinik und Pharmakologisches Institut der Medizinischen  
Universitat, Szeged.

(CORNEA, ulcers

eff. of rutin in rabbits)

(ULCERS

cornea, eff. of rutin in rabbits)

LOVI, Marta,; ADOR, Viktoria,; GABOR, Miklos.

Effect of rutin on experimental corneal ulcer. Kiserletes orvostud. 7  
no.2:117-120 Mar 55.

1. Szegedi Orvostudomanyi Egyetem Szemklinikaja es Gyogyszertani  
Intezete.

(VITAMIN P, effects,  
on exper. corneal ulcer)

(CORNEA, ulcers,  
exper., eff. of vitamin P)

(ULCER, experimental,  
cornea, eff. of vitamin P)

"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1

ADORATSKIY, V. V.

"Utilization of Waste Heat from Industrial Enterprises for Vegetable Gardening  
in Enclosed Ground," Prom. Energet., No. 11, 1949.

(Trust of the Hothouse and Seedbed Combines of the Ministry of Trade, USSR.)

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1"

RUMANIA / Human and Animal Physiology. Blood. Blood T  
Transfusions and Blood Substitutes.

Abs Jour: Ref Zhur-Biol., No 22, 1958, 101804.

Author : Hadnagy, Cs.; Szabo, St.; Bartel, Gh., Adorjan,  
E.; Kinda, C.; Rott, L.

Inst : Not given.

Title : Blood Picture in Hemolytic Shock.

Orig Pub: Fiziol. norm. si patol., 1956, 3, No 4, 441-445.

Abstract: Suspensions of human erythrocytes (E) of the group AB were introduced to rabbits and dogs. After 15 min., shock developed, during which the indices of thrombocytes, leucocytes, absolute number of eosinophiles, relative number (by 10-12%) of segmented granulocytes, and ESR decreased, and relative lymphocytosis developed.

Card: 1/1

HADNAGY, Csaba; DEZSI, Zoltan ; ADORJAN, Etelka

Experimental studies on the antibody content of lymphocytes.  
Kiserletes orvostud. 8 no.4:343-345 July 56.

1. Marosvasarhelyi Vertarolo es Veratomleszto kozpont es  
Elettani Intezet.

(LYMPHOCYTES

antibody transport, eff. of lymphocyte disintegration  
on titer (Hun))

(ANTIGENS AND ANTIBODIES

antibody transport in lymphocytes, eff. of lymphocyte  
disintegration on titer (Hun))

DANIELLO, L.; SZABO, I.; MODY, E.; GELEPU, E.; SZEKELY, I.; ADORJAN, E.;  
ERDELY, A.

Complex dysproteinemia tests in silicosis. Rumanian M Rev. no.1:  
129-131 Ja-Mr '61.

1. The Clinic of Phthisiology, Cluj (Prof. L. Daniello) and the Chair  
of Physiology, Tg. Mures (Assist. Prof. I Szavo).  
(SILICOSIS blood) (BLOOD PROTEINS chemistry)

ADORJANI, Ferenc, dr.; BELA, Maria, dr.

Deafness and psychosis. Ideggyogy. szemle 15 no.12:362-366 D '62.

1. Az Orszagos Ideg- es Elmegyogyintezet (Igazgato-foorvos: Maria  
Bela dr.) III/B. noi elmeosztalyanak kozlemenye.  
(DEAFNESS) (PSYCHOSES, MANIC-DEPRESSIVE) (PARANOIA)

ABDULJAN, Gy.

"The manufacture of boring equipment in Hungary." p. 192. (SANYASZATI LÉÜK,  
Vol. 8, no. 4, Apr. 1953. Budapest.)

SD: Monthly List of East European Accessions, Vol. 2, #8, Library of Congress  
August, 1953, Unclassified.

V 123B<sup>2</sup> The Manufacture of Carbide Drill Bits in Hungary  
Development of a New Branch of Industry. Kemen, ferölli  
**HG** fürdőfelsz. hozzágyártás. Egy új iparág kifejlesztése. (Hungarian.) Olágyi Adorán. Bányaüzelli lapok, v. 10, no. 10, Oct.  
1955, p. 545-546.

Investigates material and production methods, pilot-plant production, and experiences of large-scale manufacture. Diagrams, tables, graph, photographs.

"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1"

ADORJAN, Istvan, dr.

Compression arthrodesis of the knee. Magy. sebeszet 7 no.1:  
28-35 Feb 54.

1. A Budapesti Orvostudomanyi Egyetem Orthopaedial Klinikajának  
kozlemenye Mb. vezeto: Glauber dr. egyet. adjunctus.  
(KNEE, surg.  
arthrodesis by compression, technic)

ADORJAN, Istvan, dr.; GYORGYI, Geza, dr.; RONA, Gyorgy, dr.

Osteopetrosis. Magy. radiol. 8 no.1:33-38 Feb 56.

1. A Budapesti Orvostudomanyi Egyetem Orthopaedial Klinikajának  
(meg. igazgató: Glauber, Andor dr. egyetemi docens) és I.  
Korbonctani és Kísérleti Rakkutató Intézeténél (igazgató:  
Balo József dr. egyetemi tanár) közleménye.

(OSTEOSCLEROSIS

osteopetrosis, familial incidence, x-ray manifest.  
& pathol. (Hun))

ADORJAN, J.; PERNYE, E.

"Experiences and suggestions concerning mechanical equipment in day nurseries and kindergartens." p. 97.

EPULETGEPESET. (Epitoipari Tudomanyos Egyesulet). Budapest, Hungary,  
Vol. 8, No. 3, 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8,  
August 1959.  
Unclu.

"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1

James M. Dier (2000) - CIA - 100330003-1

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1"

ADOLJANI, Csaba; GALFI, Bela, dr., főorvos; SCHEINKI, László

Objective testing of the effect of drugs by means of psychological methods. Magy psichol szemle 21 no.2:242-248 '64.

1. Institute of Work Therapy, Ministry of Health, Budapest.
2. Director, Institute of Work Therapy, Ministry of Health, Budapest (for Galfi).

ADORJANI, Csaba; PUSKAS, Imre, dr.

The re-socializing effect of the theater in mental patients according to 2 observations. Ideggyogy. szemle 15 no.5:129-133 My '62.

1. Egeszsegugyi Miniszterium Munkatherapias Intezete (igazgato foorvos: Galfi Bela dr.) kozlemenye.

(MENTAL DISORDERS ther) (ART)

"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1

ADORJANI, Csaba; PUSKAS, Imre, dr.

Special group therapy. Magy pszichol szemle 18 no.2:219-220  
'61.

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1"

HUNGARY/SOVIET UNION

MESHERSKIY, R. M., and MALIKOVA, A. K., Institute of Higher Nervous Activity and Neurophysiology at the Soviet Academy of Sciences (Institut Vysshei Nervnoi Deyatelnosti i Neirofiziologii, AN SSSR) in Moscow, USSR; and ADORJANI, Csaba, Institute of Psychology at the Hungarian Academy of Sciences (Magyar Tudomanyos Akademia Pszichologiai Intezete) in Budapest.

"Corticofugal Regulation of Latent Periods of Bioelectrical Responses to Photic Stimulation in the Rabbit Visual Cortex"

Budapest, Acta Physiologica Academiae Scientiarum Hungaricae, Vol 29, No 3-4, 8 Jun 1966, pp 235-246.

Abstract: [English article] The authors attempted to elucidate the change in amplitude of responses of the lateral geniculate nucleus attributable to excitatory and inhibitory corticofugal effects by studying the latencies of evoked potentials in different states of the visual cortex, such as strychninization or depression. The findings, presented and discussed in some detail, supported the assumptions published by other authors in this regard. 18 references, including 10 Russian, 1 Czechoslovak, 1 German, and 6 Western. (Manuscript received 2 Jun 1965).

1/1

HUNGARY

AJORJANI, Ferenc, Dr., MDPH, Bela, Dr; State Neurological and Psychiatry Institute, III/B women psychiatric ward (Oroszegi Ideg-es Elmegyogy-Intézet, III/B női elmeosztálya) medical director (igazgató-főorvos) MARSA, Bela, Dr.

"Deafness and Psychosis."

Budapest, Idegggyógyászati Szemle, Vol XV, No 12, Dec 62, pages 362-366.  
Hungarian

Abstract: [Authors' Summary] Twelve patients were selected for study whose deafness existed before psychotic manifestations were present. 10 patients showed paranoid characteristics, 2 were found to have depression syndrome. The majority of the paranoid psychosis cases were explained by the self-isolation due to the deafness and the long-lasting affect stress leading to the psychosis in individuals who showed hypo-paranoid personalities before the deafness. The important role of psychotherapy is stressed in the treatment. [5 Western, 2 Soviet-bloc references]

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"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1

AFD-OVA, D. N.

"Methods of Increasing the Production of Polymers from Koura, Iran."

report presented at the Conference on Beneficiation of Non-Ferrous Minerals, sponsored by the Learned Council of the ICD, at IITB, Madras/Karapatti, 22 Nov - 6 Dec 19

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1"

SIDYAKOV, P.V., kandidat tekhnicheskikh nauk; ADOROVA, M.N., inzhener.

Hermetic sealing of aspirators. TSement 22 no.4:14-16 J1-Ag '56.  
(MLRA 9:10)

(Cement industries) (Aspirators)

"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1

ADOROVICH, E.I.

Quantum mechanics and the resonance theory. Dokl.AN SSSR 95 no.4:  
825-828 Ap '54. (MLRA 7:3)

1. Fizicheskiy institut im. P.N.Lebedeva Akademii nauk SSSR.  
(Resonance) (Quantum theory)

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1"

SABO, I.; ADOR'YAN, S.; KHADNOD', Ch.; KIFOR, I.; MODI, I.

Effect of tuberculostatic substances on some functions of  
the liver. Pat. fiziol. i eksp. terap. 9 no.1:73 Ja-F '65.  
(MIRA 18:11)

1. Kafedra fiziologii i II terapevticheskaya klinika Mediko-  
farmatsevticheskogo instituta, Tyrgu-Muresh, Rumyniya.

ADOV, Ye.; NIKOLAYEV, A.

For removing obstacles and discrimination. Vnesh. torg. 43  
no.8:16-21 '63. (MIRA 16:8)  
(United Nations--Commissions) (Commerce)

ADOV, Ye.

Australian foreign trade at its present stage. Vnesh. torg.  
43 no.10:19-22 '62. (MIRA 16:11)

ADOYAN, A. G.

USSR/Electricity - Machines, Electric  
Fire Extinguishers

May 50

"Automatic Water Spray Fire Extinguishing on Electric Machines," A. G. Adoyan, Engr, 3 pp

"Elek Stants" No 5

Describes own system. Water is supplied from ring-shaped main which encircles machine through 12 nozzles disposed equidistantly around circumference. System can be controlled either by protection coil in switchgear or by special photoelectric or thermoelectric fire alarm relay.

161T25

"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1

ADOYAN, A.G.; KARASEVA, N.D.

Study of short-circuit currents in small low-voltage electric  
systems. Izv.AN Arm.SSR.Ser.FMET nauk 4 no.6:499-502 '51.

(MLRA 9:8)

1. Laboratoriya elektrotehniki Akademii nauk Armyanskoy SSR.  
(Short circuits)

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330003-1"

ADOYAN, A.G., kandidat tekhnicheskikh nauk.

The KhTZ-15 electric tractor unit. Elektricheskiye no. 4:76-79 Ap '56.  
(MLRA 9:7)

1. Energeticheskiy institut imeni Krzhizhanovskogo AN SSSR.  
(Electricity in agriculture) (Tractors)

A. A. Adoyan A. G.

Akademiya nauch SSSR.

Respectively Institut po Osn. Elektrifikacii

Problemy energetiki: obzory po zadaniyam akademika O.M. Elektrifikacii  
(Problems of Power Engineering: Collection of Articles Dedicated to Academician O.M. Elektrifikacii) Moscow, 1959. 651 p. Karta slip inserted.  
2,500 copies printed.

Ed. or Publishing House: E.D. Antropova, P.V. Dobrov, P.I. Galperin, and

S.M. Novikov; Tech. Ed.: G.A. Prokof'ev; Editorial Board: A.V. Vinogradov,

Academy of Sciences (Dokl.) V.I. Popov (Dokl. Ak.) Corresponding Member N.A. Bykovskii;

K.P. Chirkovskiy, K.B. Bogdanov, Candidate of Technical Sciences, I.K. Tolov,

Candidate of Technical Sciences, M.M. Leshov, Candidate of Technical Sciences,

and I.F. Butakov.

REMARK: This collection of articles is intended as a tribute to the memory

of Academician O.M. Elektrifikacii.

**CONTENTS:** The collection contains 651 articles by former students and  
converses of the deceased Academical. The articles deal with problems  
of the theory of networks, the problems of power engineering, problems  
of the technical development of electrical and thermal power engineering,  
power marketing technology and the physics of combustion. No personalities  
are mentioned. References are given after most articles.

Mikhalev, V.I. Some Special Features of Future Development in

Power Engineering in the U.S.S.R.

167

Pitayev, I.G. The Present State and Prospects of Future Use of

Electricity in Rural Regions of the USSR.

165

Zabotin, A.P. Methods of Determining Technical-Economic Indices of  
Electrical Networks

178

Pitayev, I.G. The Present State and Prospects of Future Use of

Electricity in Rural Regions of the USSR.

165

Bilman, R.M., K. Zhdanov and A.O. Adoyan. Electrification of Field

194

Crop Cultivation in Van Gogh

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Zhukov, T.M. Investigation of the Energy Balance of an Electric

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Generator Unit

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Masharov, I.M., S.A. Burov. Extremely Long-Distance Transmissions of

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Long-Distance AC Transmissions

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Gorobets, V.I. Effect of Foreign and Recurrent Excitation on the

Periodic Stability of Long-Distance Transmissions

262

Masharov, F.M. On the Inadequacy of the Method of the Equivalent

Generator for the Investigation of Stability of Electric Transmission

294

With Small Discrepancies

Korolev, O.I., O. P. Kharkevich. The Limit of Static Stability of

a Multi-Unit Station With Strong Regulation of Excitation

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Kuznetsov, I.A., B.N. Glazkov, G.Ye. Muratov. Series Connection of

308

Capacitors for Increasing Inverter Stability

Ogorodnikov, V.I., M.G. Litvin. Commission for the Long-Distance Trans-

319

mission of Electrical Energy at the Power Engineering Institute Izhevsk

O.M. Khrushchevsky

319

Korlov, M.V. Coefficients of Resistive Resistances to the Movement

of Gas-Liquid Mixtures in Vertical Tubes

327

Lentner, A.L. Calculation of Turbulent Friction in the Flow of a

337

Compressed Gas Around a Flat Plate

Tscherniaev, M.I. Investigation of the Structure of an Axially-

343

Symmetric Biparametric Stress in a Vacuum

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Dobrov, G.V. Conditions for Representing Heating Systems With Flows

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Burners of Fuel

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Metropol'skiy, Z.L., M.A. Styrkovich, M. Ye. Sultman. Heat Trans-

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Mission in Steam-generating Tubes at High Pressures

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Kostin, S.I., Yu.A. Koshelev. Calculation of Resistance and of

373

Heat Exchange in a Stress of Uncompressed Liquid in the Presence

373

of a Positive Pressure Gradient

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## PHASE I BOOK EXPLOITATION

SCY/5186

Akademiya nauk SSSR, Tsentral'naya nauchno-issledovatel'skaya laboratoriya elektricheskoy obrabotki materialov Problemy elektricheskoy obrabotki materialov [Problems of the Electrical Machining of Materials] Moscow, Izd-vo AN SSSR, 1960. 247 p. Errata slip inserted. 4,200 copies printed.

(Series: Its: Trudy) (Series: Its: Trudy)

Sponsoring Agency: Akademiya nauk SSSR. Resp. Ed.: B. R. Lazarenko; Ed. of Publishing House: M. L. Podgoyetskiy; Tech. Ed.: S. P. Golub.

PURPOSE: This collection of articles is intended for scientists and technicians concerned with the investigation of new ways of supplying electrical energy.

COVERAGE: The book contains articles on studies carried out by the staff of the Tsentral'naya nauchno-issledovatel'skaya

## Problems of the Electrical (Cont.)

laboratoriya elektricheskoy obrabotki materialov Akademii nauk SSSR (TsNIL-ELEKTRON AN SSSR) (Central Scientific Research Laboratory for the Electrical Machining of Materials of the AS USSR). In searching for new applications of electrical energy. The results of these studies include: the dimensional machining of dielectrics and the utilization of electric pulsed discharges in carrying out certain chemical reactions; new information on processes occurring on electrode and in the interelectrode space during spark pulsing, and some new data on the technological processes in metal machining by electric current pulses. Much attention is paid to the analysis of the operation of power-supply bureaus used in the electrical machining and arc welding of metals. No personalities are mentioned. References accompany most of the articles.

Lazarenko, B. R., and M. I. Lazarenko. Unused Possibilities for Electrical Energy 5

Pechuro, N. S., A. M. Merkur'yev, E. Ya. Grodinskii, and N. I. Slobodova. Study of Physicochemical Changes Occurring in Organic Media Under the Effect of Electrical Discharges 14

Poteryov, M. K. Effect of the Condition of the Interelectrode Spac on the Performance of the Spark Process, the Wear of the Machining Electrode, the Purity of the Surface Obtained, and the Precision of the Machining 25

Adoyan, A. G. Electrostatic Method of Purifying Dielectric Liquids from Products of Spark Machining 36

Lazarenko, B. R., and M. I. Lazarenko. Electric-Spark Method of Perforating Diamonds 51

Zolotukhin, B. N., K. Kh. Gloriev, and Yu. A. Tropov. Concerning the Mechanism of Electrical Erosion of Metal in a Liquid Dielectric Medium 71

## PHASE I BOOK EXPLOITATION

SOV/5186

Akademiya nauk SSSR, Tsentral'naya nauchno-issledovatel'skaya  
laboratoriya elektricheskoy obrabotki materialov

Problemy elektricheskoy obrabotki materialov (Problems of the  
Electrical Machining of Materials) / Moscow, Izd-vo AN SSSR,  
1960. 247 p. Errata slip inserted.

(Series: Its: Trudy)

Sponsoring Agency: Akademiya nauk SSSR. Rep. Ed.: B. R.  
Lazarenko; Ed. of Publishing House: M. L. Podgoretsky;  
Tech. Ed.: S. P. Golub.

PURPOSE: This collection of articles is intended for scientists  
and technicians concerned with the investigation of new ways  
of applying electrical energy.

CONTENTS: The book contains articles on studies carried out by  
the staff of the Tsentral'naya nauchno-issledovatel'skaya

## Problems of the Electrical (Cont.)

laboratoriya elektricheskoy obrabotki materialov Akademii  
nauk SSSR (FANZ-ELEKTRICH AN SSSR) (Central Scientific Re-  
search Laboratory for the Electrical Machining of Materials  
of the AS USSR). In research for new applications of elec-  
trical energy. The results of these studies include: the  
dimensional machining of dielectrics and the utilization of  
electric pulsed discharges and currents of certain chemical  
reactions; new information on processes occurring on elec-  
trodes and in the interelectrode gaps during short pulses;  
and some new data on the technological processes in metal  
machining by electric current pulses. Much attention is  
paid to the analysis of the operation of power-supply sources  
used in the electrical machining and arc welding of metals.  
No details are mentioned. References accompany most

Kondratenko, V. M., Some Methods of Investigating Power  
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132

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Circuits for Electric-Spark Machining of Metals With a  
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Shchitova, T. M., Ye. I. Sil'chenko, and T. M. Shchitova,  
Investigation of Automatic Control Systems and Power Supply  
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Adorjan, A. G. and V. M. Kolesnikov, Investigation of  
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Zolotrich, B. M., Concerning the Computation of the Techno-  
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Machining Process of Current-Carrying Materials

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Morzhov, A. S., and A. V. Plisetsky, Some Technological  
Data on the Operation of a Machine Pulse-Processor During  
the Machining of Special Alloys

233

Lazarenko, B. R., Universal Laboratory Stand

244

AVAILABLE: Library of Congress  
card 6/6

JP/dark/c  
S-22-61

S/196/61/000/009/047/052  
E194/E155

AUTHOR: Adoyan, A.G.

TITLE: An electrostatic method of removing spark machining products from dielectric fluids

PERIODICAL: Referativnyy zhurnal, Elektrotehnika i energetika, no. 9, 1961, 41-42, abstract 9K 308. (Sb. Probl. elektr. obrabotki materialov, M., AN SSSR, 1960, 36-50)

TEXT: A laboratory model electrostatic filter has been developed, made and subjected to preliminary tests. It is intended for purifying kerosine mixture at a rate of 2 litres/min by applying an electrical stress of 6 - 7 kV/cm between plane parallel electrodes. The supply is taken from a standard rectifier as used in television receivers which gives an output voltage that can be controlled in the range 0 - 15 kV. The filter should be provided with arrangements for continuous or periodic removal of trapped particles. Graphs and sketches are given which characterise the operating principles of the electrical filter. 20 literature references.

[Abstractor's note: Complete translation.]  
Card 1/1

S/196/61/000/010/033/037  
E194/E155

AUTHORS: Adoyan, A.G., and Kolesnikov, V.M.  
TITLE: An investigation of transient processes in impulse generators of R, L, C spark machining equipment  
PERIODICAL: Referativnyy zhurnal, Elektrotehnika i energetika, no. 10, 1961, 42, abstract 10K 242. (Symposium "Problems of electrical machining of materials", M., AS USSR, 1960, 215-220)  
TEXT: In selecting the optimum parameters (R, L, C) of the main electrical circuit of equipment with relaxation generators, allowance should be made for the component of current from the power source in the total current of the spark discharge. This is of vital influence in the process of formation of electrical impulses by the generator. It is obvious that at the end of the discharge there is in the generator a certain critical (instantaneous) value of this current component, and if it is exceeded the impulses will break down and there will be steady arc discharge. From the investigation, equations are derived

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SO: Knizhnaya letopis' No. 27, 2 July 1955

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ADOYAN, I.N.; KRYUKOV, A.D.

Experimental investigation of the characteristics of "double"  
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